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CIVILIAN HIGH-LEVEL RADIOACTIVE WASTE

STATEMENT OF

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TO THE

SUBCOMMITTEE ON ENERGY AND POWER

COMMITTEE ON COMMERCE

U.S. HOUSE OF REPRESENTATIVES

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SUMMARY OF TESTIMONY ON CIVILIAN RADIOACTIVE WASTE
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1. Centralizing interim storage of highly irradiated nuclear fuel would be a mistake for health, safety, environmental and fiscal reasons. Congress should not rush into such a hazardous undertaking under the mistaken belief that a "crisis" necessitates transporting waste.

2. At-reactor dry cask storage through 2010 will be at least seven times less expensive than the costs through 2002 of centralizing interim storage at the Nevada Test Site as proposed by Senate legislation.

3. Naming a site for centralized interim storage before a decision is made on the suitability of Yucca Mountain as a permanent repository would undermine the credibility and financing of the repository program. In addition, the Nuclear Waste Technical Review Board recommends deferromg a decision to locate the nation's primary central storage facility for spent fuel at or near Yucca Mountain until the suitability of the site as a repository location has been determined.

4. Setting an arbitrary cap on the Nuclear Waste Fund fee, as H.R. 1270 would do, virtually ensures that the waste program will be underfunded. The results will be shortchanging the scientific work

at Yucca Mountain and, eventually, taxpayers picking up the tab for the waste program.

5. The site characterization of Yucca Mountain needs to observe strict environmental standards. The siting guidelines should not be revoked, as proposed by DOE and H.R. 1270. EPA should be allowed to set radiation protection standards, not be preempted by H.R. 1270, which would allow an extremely dangerous amount of radiation exposure.

6. H.R. 1270 broadly preempts state, local and federal laws. In addition, the bill cuts serious loopholes in vital environmental laws, including the Safe Drinking Water Act and the National Environmental Policy Act.

7. The Nuclear Regulatory Commission should improve regulation and public participation procedures for on-site storage of highly irradiated fuel.

8. An independent review of all U.S. radioactive waste policies is essential and long overdue.

9. For all the reasons above, Congress should not pass H.R. 1270 or similar legislation. If such legislation is sent to the President, he will veto it, so Congress is wasting its time with this bill.

Chairman Schaefer, Members of the subcommittee:

Thank you for the opportunity to present Public Citizen's views on civilian high-level radioactive waste. Public Citizen is a non-profit, non-partisan consumer research and advocacy organization with over 130,000 members nationwide. We accept no funding from corporations, governments, or trade assocations.

The question of what to do with highly irradiated nuclear fuel from commercial reactors is surely one of the most intractable public policy issues of our time. In fact, no country in the world has found the long-term answer to the problem of isolating these extremely toxic wastes from humans and the environment for the millenia during which they remain hazardous.

Public Citizen, like many other citizens organizations concerned with this issue, strongly opposes H.R. 1270, the Nuclear Waste Policy Act of 1997, and the similarly titled S. 104. These bills would take our nation's nuclear waste policy in the wrong direction and make a bad situation worse.

Centralizing the interim storage of highly irradiated nuclear fuel is worse than continuing to store the waste at the reactors that generate it. From the perspectives of health, safety and the environment, centralized interim storage does not offer advantages over at-reactor storage. In fact, centralizing interim storage as mandated by H.R. 1270 would increase both the health risks and the costs of nuclear waste storage. No risk assessment or cost-benefit analysis has been conducted that justifies the hazards and expense of centralized interim storage.

I have yet to hear any substantive environmental, health or safety rationale for moving nuclear waste away from an operating reactor. Although I certainly do not want to belittle the dangers of radioactive waste, it is clear that the risks posed by the nuclear fuel undergoing fission in the reactor dwarf the risks posed by the irradiated fuel stored next to the reactor.

While the nuclear industry claims that centralized interim storage reduces high-level waste sites from 109 to one, every operating reactor will remain a high-level waste site so long as it continues to split atoms. It is highly deceptive to claim that centralized interim storage would reduce high-level sites to one, since waste will always be stored on-site at every operating reactor. Irradiated fuel will never be magically transported from a reactor vessel to a dump in an ostensibly remote location. The waste will be stored on site in fuel pools for years after coming out of the reactor, regardless of whether Congress opens a new dump.

Mandating centralized interim storage would, in addition to creating a new stationary nuclear waste dump, create a whole set of new mobile waste sites on trucks and railroads shipping waste across the country. While we do not oppose all transportation of radioactive waste for all time, any such transportation should be undertaken only for sound public policy reasons. For the foreseeable future, no such reason exists for moving nuclear waste away from operating reactors and inflicting on citizens in 43 states the risks of waste transportation. No “crisis” exists that would justify rushing into such a hazardous enterprise.

While the nuclear industry claims that declining space in reactor fuel pools is a major crisis, utilities are able to expand their on-site storage capacity with dry casks, and many have already done so. Saying that dry-cask storage on site is the least unsafe method

of storing nuclear waste does not mean that we endorse the particular ways in which this technology is being implemented. The Nuclear Regulatory Commission's lax oversight of casks and denial of public hearings undermine protection of public health and safety at sites across the country.

We do not believe that high-level waste should stay at the point of generation forever, but there should be no rush to move the waste. In fact, storing the waste for the interim period will allow a reduction in radioactivity, thus reducing the risks of handling and transportation. In order to ensure the availability of sufficient funds to pay for monitoring and safeguarding of high-level waste at shutdown reactors, some Nuclear Waste Fund money should be given to utilities that have permanently retired their nuclear power plants.

The amount of money paid in to the Nuclear Waste Fund is often used as a rationale for forcing the government to take out the trash of the nuclear industry. This is a mistake. The Nuclear Waste Fund is meant to cover all of the costs of permanent disposal of commercial high-level waste. That means the funds need to be stored up for the time when they will be needed. It means that the DOE can not be expected, at any given time, to have expended all of the money paid in to the Fund. The Nuclear Waste Fund fee should be increased to make sure that all the life-cycle costs of the waste program are covered by the user fee. Otherwise, the taxpayers will be forced to pay the tab. In fact, capping the fee, as H.R. 1270 would do, virtually ensures that taxpayers will have to pay for disposition of commercial nuclear waste, contrary to the goal of the 1982 Nuclear Waste Policy Act. The Nuclear Waste Fund is already expected to have a shortfall of $3-5 billion, according to an independent financial review, and centralized interim storage costs

would increase that deficit.

H.R. 1270 creates other fiscal problems by transferring title to nuclear waste to the government long before a permanent repository is ready. This means that taxpayers will be liable for damages caused by the storage and transportation of waste in the interim period, a violation of the principle that the polluter should pay for the hazards it creates.

Another common misconception about the radioactive waste program is the contention that DOE is required to take waste from utilities next January. DOE and the utilities have a contract dispute. I will leave the speculation about possible remedies to others, but the least likely outcome, in my opinion, is that a court will order specific performance of the contracts and require DOE to start moving waste. In fact, the Nuclear Waste Policy Act prohibits the opening of a centralized interim storage facility before the licensing of a permanent repository.

Advocates of centralized interim storage claim that it is less expensive than continued on-site storage, and the nuclear industry has even claimed that the federal government will be liable for $40-80 billion for failure to accept utility waste. Interestingly, those who use this figure have never explained how they arrived at it. So we took a look at the real costs of on-site storage, and discovered that the actual costs of storing highly irradiated nuclear fuel in dry casks at reactors will be in the range of $224-330 million through 2010, the scheduled date for repository opening. This compares to a cost of $2.3 billion for the centralized interim storage requirements of S. 104, according to the Congressional Budget Office. Unlike the industry, we have published our methodology. In a nutshell, we calculated the amount of irradiated fuel likely to require

dry cask storage through 2010, and used two cost scenarios from two reactors (one closed and one operating) that are currently storing waste on-site. These two different scenarios are the cause for the range in our cost estimates. We used methodology likely to overstate the costs. For example, we assumed that all reactors would run through the end of their licensed terms, when in fact many — in all likelihood, a large majority — of the nation's reactors will close before they reach the end of their licenses. In fact, since we conducted our analysis, GPU has announced the likely closure of its New Jersey Oyster Creek reactor, one of the plants with the highest storage costs. Our cost estimate is in the same ballpark as that of DOE, which has estimated the additional costs of dry storage between 1998 and 2007 at $366 million. No one should give any credence to the absurd $56 billion figure emanating from the nuclear industry.

Supporters of the permanent repository program should especially oppose H.R. 1270. As the Nuclear Waste Technical Review Board has recommended in its 1996 year-end report, "A decision to locate the nation's primary centralized storage facility for spent fuel at or near Yucca Mountain should be deferred until the suitability fo the site as a repository location has been determined." The Board's reference to "suitability" rather than "viability" is an important distinction, as the former is the only statutorily-required determination prerequisite to a license application. The Board states that the viability assessment will not provide adequate information for a technical decision on Yucca's suitability as a site for a repository. Therefore, the viability assessment is also an insufficient basis on which to make a determination that Nevada should host an interim storage facility.

Moving waste to an area of the Nevada Test Site adjacent to

Yucca Mountain in the year 2000, as the bill would mandate, would be detrimental to the repository program. First, the $2.3 billion interim storage program would siphon off funds from the site characterization of Yucca. Second, the already-battered credibility of the Yucca study would be completely shredded by having the waste already in the vicinity.

One of the hazards of the new nuclear waste dump mandated by H.R. 1270 is the extremely high risk of earthquakes. I have appended to my testimony a map, prepared by the State of Nevada, showing the 621 seismic events of magnitude greater than 2.5 in the vicinity of the proposed interim storage and permanent repository sites from 1976 to 1996. As the description on the other side of the map points out, in 1992 a magnitude 5.6 earthquake occurred near Little Skull Mountain, very near the area of the Test Site targeted for interim storage by this bill. That earthquake, which occurred on a previously-unidentified fault, caused damage to a nearby DOE field office building for the Yucca project.

In light of the seismic activity at the Test Site, it is particularly disturbing that H.R. 1270 circumscribes the environmental impact statement process, cutting loopholes in the National Environmental Policy Act. The bill exempts from any environmental review the selection of the interim storage site, preparation and submittal of the license application, and the construction and operation of any facility. The bill does require NRC to conduct an EIS on its final decision to grant or deny a license for the new dump, but it excludes from that process consideration of several key factors, including the need for the facility and alternatives to the site. So this extremely hazardous facility would be exempted from the basic provisions for environmental review that are required for federal actions that have significant impacts on the environment.

Rushing to move waste to Nevada violates good sense in a number of other ways. If Yucca is not deemed suitable as a permanent resting place for high-level waste, then two possibilities, neither of them acceptable, would result. One is that the so-called interim storage facility would become permanent, without the safeguards of a permanent repository. The other possibility is that the waste would have to be moved again, needlessly increasing the risks of radioactive waste transportation.

If the decision on whether to bury waste at Yucca Mountain is to have any credibility, it must follow sound environmental standards. In particular, radiation exposure standards must protect public health. The 100 millirem standard set by H.R. 1270 constitutes a flagrant assault on the health of the American people. Lifetime exposure to an annual dose of 100 millirems correlates to a cancer death risk of one in every 286 exposed individuals. In no other area has Congess approved such an outrageously high body count — in fact, cancer death risks of greater than one in a million are often considered unacceptable. Why then, would killing one of every 286 people exposed to radiation from Yucca Mountain be deemed acceptable?

Criticism of the 100 millirem standard does not come only from critics of the nuclear industry. I ask that the subcommittee include in the hearing record a paper entitled “Maximum Individual Dose and Vicinity-Average Dose for a Geologic Repository,” by T.H. Pigford and E.D. Zwahlen, December 1996. Professor Pigford, from the Nuclear Engineering Department, University of California, Berkeley, and a member of the Congressionally-ordered National Academy of Sciences panel on Technical Bases for Yucca Mountain Standards, believes that “Policy makers must reject pressures for short-term expediency and economy lest, by enacting

policy that compromises scientific validity and credibility, they undermine public confidence and end needed nuclear research and application."

Pigford finds that "It is appropriate to adopt 10 mrem/year as the U.S. design criterion for a geologic waste repository, tenfold lower than the 100 mrem/year limit now proposed by industry and Congress for geologic repositories. Both the proposed higher dose of 100 mrem/year and the new proposed lenient method of calculating doses to compare to that limit will allow higher concentrations of contaminants in ground water."

Pigford goes on to say that focusing only on the vicinity-average dose, as H.R. 1270 would do, "violates the long-established principle in protecting public health from radiation." The International Commission on Radiological Protection stresses that calculations should be based on protecting the individual receiving the maximum individual dose.

H.R. 1270 would also preempt the Safe Drinking Water Act by precluding the EPA from setting a ground water protection standard for Yucca Mountain. A ground water standard is absolutely essential to protecting public health and safety. Furthermore, H.R. 1270 would strictly apply its radiation release standard only for the first 1,000 years of repository operation, despite the fact that the plutonium in the waste will remain hazardous for 240,000 years.

Congress in 1992 instructed the EPA to establish radiation protection standards for Yucca Mountain. EPA, informed by the NAS report, is in the process of doing so. Congress should not now preempt that process, but should allow EPA to go ahead and set the standards.

Both the bill and a DOE proposal would repeal the siting guidelines for the permanent repository. I t seems that those who have already decided that waste should be sent to Nevada will always try to change the standards to suit the site whenever confronted with the possibility that the site can not meet the standards.

Yet another environmental problem with the bill is its direction to the NRC to simply assume away the problems posed by people intruding into the repository site after it is closed and by any increase in the exposure of members of the public to radiation beyond the 100 millirem standard. Rather than actually trying to assure protection to future generations, H.R. 1270 seeks to write away real problems by legislative fiat.

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Many members of Congress claim to support states' rights, yet H.R. 1270 has some of the most extreme preemption language ever proposed. State and local laws are preempted automatically if they pose obstacles to carrying out the Act or its regulations. Federal laws would also be preempted if inconsistent with the Act, so nuclear waste legislation would simply run roughshod over all other laws.

Dumping radioactive waste on Native American land is one of the worst forms of environmental racism. The Western Shoshone people claim Yucca Mountain as treaty land under their sovereignty, and their claim must be addressed, not brushed aside.

As for the future of this legislation and its Senate companion, I note that President Clinton has repeatedly promised to veto legislation that names a site for centralized interim storage before a decision on the viability of Yucca Mountain. S. 104 passed the Senate

with a margin too small to override a veto, so the House should not waste its time with this legislation.

Rather than rushing to supply a quick political fix for the public relations problems of the nuclear utilities, Congress should commission an independent review of the nation's policies for all radioactive wastes, defense and commercial, high-level, "low-level," mixed wastes, and uranium tailings.